

Notice of Allowability

Application No.

10/519,486

Applicant(s)

KURIHARA, HIROAKI

Examiner

Abiy Getachew

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/9/2008.
2. ☒ The allowed claim(s) is/are 1,3 and 7-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 1/10/2008.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 1, 3, 7-12 are allowed over the prior art of record.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Sunhee Lee on January 10, 2008.

The application has been amended as follows:

LISTING OF CLAIMS:

1. ((TWICE CURRENTLY AMENDED)) : A flexible wiring substrate comprising an insulating substrate, a wiring pattern formed on a surface of the insulating substrate, and a solder resist layer formed on a surface of the wiring pattern, wherein the solder resist layer is formed on a part of the surface of the wiring pattern to leave at least terminal portions of the wiring pattern uncovered by the solder resist layer, wherein the uncovered terminal portions of the wiring pattern have a tin-bismuth alloy plating layer which is formed on the surface of the wiring pattern, and wherein the wiring pattern is a multilayer comprising a base layer formed of a conductor and a first tin plating layer, and

a second tin plating layer is disposed between the first tin plating layer and the tin- bismuth alloy plating, layer, and formed adjacent to the solder resist layer, on the same surface of the wiring pattern as the surface where the solder resist layer is formed.

2. (Canceled).

4-6 (Canceled).

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record neither teach nor render obvious the instant application claimed invention as a whole, in particular, the prior art fails to teach "a second tin plating layer is disposed between the first tin plating layer and the tin- bismuth alloy plating, layer, and formed adjacent to the solder resist layer, on the same surface of the wiring pattern as the surface where the solder resist layer is formed, as recited in claim 1 and a step of forming a second tin plating layer on the second region of the first tin plating layer", "a step of providing a tin-bismuth alloy plating layer on at least a portion of the region of the second tin plating layer" as recited in claim 10

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abiy Getachew whose telephone number is (571) 272 6932. The examiner can normally be reached on Monday to Friday 8Am to 4:30Pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272 2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Abiy Getachew
Examiner
Art Unit 2841

A.G.
January 22, 2008


TUAN T. DINH
PRIMARY EXAMINER
4/8/08.